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## PATENT ABSTRACTS OF JAPAN

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(71) Applicant: SONY CORP  
(72) Inventor: NUMAOKA CHISATO

### (54) APPARATUS AND METHOD FOR IMAGE DISPLAY DEVICE

#### (57) Abstract:

PROBLEM TO BE SOLVED: To improve operability and mobility of a portable device with a display device.

SOLUTION: A frame difference detector 4 extracts a change in an image produced between two frames by using contents of frame buffers 2, 3. A gravity center calculation detector 5 calculates a gravity center of the image change, based on the extracted image change, and a gravity center coordinate storage section 6 or the like stores the gravity center. A camera movement value calculation device 8 obtains a difference between the content of the gravity center coordinate storage section 6 and the content of a gravity center coordinate storage section 7, to calculate a pixel change number  $\Delta P_x$  in the horizontal direction of the camera and a pixel change number  $\Delta P_y$  in the vertical

direction of the camera. A horizontal direction rotary angle controller 9 and a vertical direction rotary angle controller 10 calculate a rotary angle  $\theta_x$  of a virtual camera 11 in the horizontal direction and a rotary angle  $\theta_y$  of the virtual camera 11 in the vertical direction, to control a visual point of the virtual camera 11.

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